



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,858	08/23/2001	Gerhard Huth	HUTH-2	9489

7590 09/25/2002
Ursula B. Day
Suite 3220
350 Fifth Avenue
New York, NY 10118

EXAMINER

LE, DANG D

ART UNIT	PAPER NUMBER
----------	--------------

2834

DATE MAILED: 09/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,858

Applicant(s)

HUTH, GERHARD

Examiner

Dang D Le

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "about" in claim 3 is a relative term which renders the claim indefinite. The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. It is not clear if 69% and 81% are also claimed.

Claim 10 is indefinite because it is not clear what "a three-wire rotary field winding" and "the same number of pole pairs" are.

Claim 11 is also indefinite because it is not clear what "said drive", "a range of constant capacity" and "way of field weakening" are.

Drawings

3. The drawings are objected to because: "0,7" and "0,8" in Figures 1 and 4 should be replaced with -- 0.7 -- and -- 0.8 --, respectively. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeda et al.

Regarding claim 1, Takeda et al. show a permanent magnet excited rotor, for an electric drive, comprising:

- A rotor plate pack (3); and
- A plurality of permanent magnets (6);
- Wherein at least one rotor plate section of said plate pack comprises pole gaps (4) to increase the magnetic transverse resistance for the transverse axis of said rotor.

Regarding claim 2, it is noted that Takeda et al. also show said plurality of permanent magnets (6) of said rotor is disposed on the upper surface of a pertaining rotor plate (3) in such a way that said plurality of permanent magnets, during assembly said rotor, are arranged in a stator at the corresponding air gap between said rotor and said stator.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. in view of De Filippis.

Regarding claim 3, Takeda et al. show all of the limitations of the claimed invention except for said pole gaps being disposed such a manner that there is present a pole coverage of the upper surface of said rotor plate by said plurality of permanent magnets, with a coverage by said plurality of permanent magnets in the range of from about 70% to about 80 %.

De Filippis shows the pole gaps being disposed such a manner that there is present a pole coverage of the upper surface of said rotor plate by said plurality of permanent magnets, with a coverage by said plurality of permanent magnets of about 67% for the purpose of increasing efficiency of the motor.

Since Takeda et al. and De Filippis are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to dispose said pole gaps such a manner that there is present a pole coverage of the upper surface of said rotor plate by said plurality of permanent magnets, with a coverage by said plurality of permanent magnets in the range of from about 70% to about 80% as taught by De Filippis for the purpose discussed above.

Regarding claim 4, it is noted that Takeda et al. also show the pertaining depth of said pole gaps in said rotor plate being greater than the pertaining width of said air gap between said rotor, mounted in said stator, and said stator.

Regarding claim 5, it is noted that Takeda et al. also show said pole gaps disposed in said rotor plate pack in substantially equidistant manner.

Regarding claim 6, it is noted that Takeda et al. also show said pole gaps directly disposed at said air gap, particularly that they are configured in the upper surface of said rotor plate pack by at least one of: milling, stamping, and punching.

Regarding claim 7, it is noted that Takeda et al. also show said pole gaps disposed in covered manner in said rotor plate section, particularly that they are provided in said rotor plate pack by a punching operation.

Regarding claim 8, it is noted that Takeda et al. also show said pole gaps being substantially filled by a material that is substantially amagnetic.

Regarding claim 10, it is noted that De Filippis also shows a stator (1) comprising a three-wire rotary field winding of a predetermined number of pole pairs and said rotor comprising the same number of pole pairs as said stator comprising a three-wire rotary field winding of a predetermined number of pole pairs.

8. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. in view of De Filippis as applied to claim 8 above, and further in view of Kawamura.

Regarding claim 9, the rotor Takeda et al. modified by De Filippis includes all of the limitations of the claimed invention except for said plurality of permanent magnets comprising rare-earth permanent magnets.

Kawamura shows said plurality of permanent magnets comprising rare-earth permanent magnets for the purpose of increasing the efficiency of the motor.

Since Takeda et al., De Filippis and Kawamura are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make said plurality of permanent magnets of rare-earth permanent magnets as taught by Kawamura for the purpose discussed above.

Regarding claim 11, it is noted that Kawamura also shows said drive configured to be driven in a range of constant capacity by way of field weakening at variable number of rotations.

Information on How to Contact USPTO

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

Application/Control Number: 09/935,858
Art Unit: 2834

Page 7

872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL
September 21, 2002

A handwritten signature, possibly reading "DL", in cursive script.A large handwritten signature in cursive script, appearing to read "Lamy S. G".